IN THE CLAIMS:

Please cancel Claims 2 and 6 without prejudice or disclaimer of subject matter. Please amend Claims 1, 3 to 5, 7 and 12 as follows:

1. (Currently Amended) An X-ray imaging apparatus comprising:

X-ray generation means for emitting X rays;

an X-ray detector on which a grid selected from a plurality of different types of grids is removably mountable, wherein said X-ray detector receives the X-rays emitted from said X-ray generation means, and wherein said X-ray detector obtains ~~an~~ X-ray image data;

said X-ray detector including an automatic exposure control (AEC) detector which includes plural exposure detection elements, said AEC detector for detecting the quantity of X-rays emitted from said X-ray generation means and for outputting a signal based on the detected quantity; and

~~control~~ driving means for ~~controlling~~ driving said X-ray generation means based on the signal output from ~~and~~ said AEC detector,

wherein a gain of the exposure detection elements is corrected by gain-correction data according to the selected grid in said AEC detector

~~wherein said control means controls said X-ray generation means based on the signal output from said AEC detector, and~~

~~wherein said control means controls said AEC detector using correction data to correct an exposure detection element forming a part of said AEC detector~~.

2. (Cancelled)

3. (Currently Amended) An X-ray imaging apparatus according to Claim [[2]] 1,

wherein the gain of the exposure detection elements is corrected by gain-correction data according to an unmounted grid state in the case that the grid is not mounted ~~correction data relates to a state in which none of said plurality of different types of grids is mounted~~.

4. (Currently Amended) An X-ray imaging apparatus according to Claim 1, further comprising ~~storing means,~~:

storing means to store a plurality of different types of gain-correction data;

wherein said AEC detector selects the gain-correction data according to whether one of said plurality of different types of grids is mounted

~~wherein said control means stores the correction data in said storing means and wherein said control means selects the correction data according to whether one of said plurality of different types of grids is mounted, and which type of said plurality of types of grids is mounted, and at least one other condition affecting the grid~~.

5. (Currently Amended) An X-ray imaging apparatus according to Claim 4,

wherein said AEC detector ~~control means~~ further comprises ~~correction~~ gain-correction data calculation means and wherein said ~~control means~~ AEC detector calculates the ~~correction~~ gain-correction data based on the ~~correction~~ gain-correction data stored in the storing means, in the case where no ~~correction~~ gain-correction data corresponding to the ~~at least one other condition is stored in the storing means~~ selected grid.

6. (Cancelled)

7. (Currently Amended) An X-ray imaging apparatus according to Claim 1, wherein ~~said AEC detector further comprises a plurality of exposure detection elements and all of~~ said exposure detection elements are integrated into said X-ray detector.

8. (Original) An X-ray imaging apparatus according to Claim 1,

wherein said AEC detector further comprises a plurality of pixels and wherein each pixel is formed as a detector element that can be read in non-destructive manner.

9. (Original) An X-ray imaging apparatus according to Claim 1,

wherein said AEC detector further comprises a plurality of pixels and wherein each pixel is formed as a thin film transistor (TFT)-detector.

10. (Original) An X-ray imaging apparatus according to Claim 1,

wherein said control means reads said signal output from said AEC detector in a cycle of 5 msec or less.

11. (Original) An X-ray imaging apparatus according to Claim 1,

wherein the AEC detector further comprises a plurality of pixels formed as stripes of detector elements provided so as to be substantially parallel to the orientation of stripes of said grid.

12. (Currently Amended) A method for controlling an X-ray imaging apparatus ~~that has at least one automatic exposure control (AEC) pixel, including the steps of detecting in real-time part of an X-ray that is made incident via a subject, performing AEC based on a signal detected by the AEC pixel, and generating an X-ray image of the subject based on the X ray that is made incident via the subject~~, comprising the steps of:

emitting X-rays;

changing the X-rays received through a selected grid into X-ray image data;

detecting a quantity of emitted X-rays using an AEC detector and outputting a signal based on the detected quantity; and

stopping said X-ray emission based on the signal, wherein a gain of exposure detection elements forming a part of said AEC detector is corrected by gain-correction data according to the selected grid in said AEC detector

~~calibrating the signal detected by the AEC pixel according to a grid state; and~~

~~performing AEC detection based on the calibrated detected signal~~.

13. (Original) Computer-executable process steps stored on a computer-readable medium, said computer-executable process steps for making a computer perform a method for controlling an X-ray imaging apparatus, said computer-executable process steps comprising process steps executable to perform a method according to Claim 12.

14. (Original) A computer-readable medium which stores computer-executable process steps, the computer-executable process steps for making a computer perform a method for controlling an X-ray imaging apparatus, said computer-executable process steps comprising process steps executable to perform a method according to Claim 12.